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FINAL REPORT

Development of a Measure of Vanity-Motivated Overspending

by

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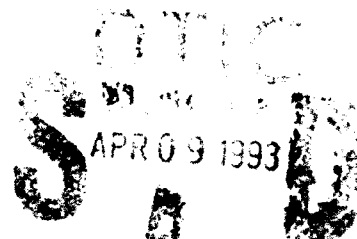## Diane Duckworth
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May 1991

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The Development of a Measure
of Vanity-Motivated Overspending

Summary

Problem and Background

Financial vulnerability is one aspect of a subject's background that is relevant to a security investigation. Those who exhibit extravagant spending patterns may be more vulnerable to monetary enticements to breach security than people who manage their finances responsibly. Overspenders may acquire sufficient debt such that they cannot service the debt through legally acquired income. Thus, they may be more susceptible to engaging in illegal, and profitable, offenses that might pose a risk to national security.

Objective

The objective of this study was to develop a paper-and-pencil instrument for the identification of those who may engage in extravagant spending to enhance their vanity needs.

Approach

Based on a literature review in the areas of narcissism, compulsive spending, and correlates of savings behavior, ten topic areas were identified relating to vanity-motivated overspending. These topic areas were used to guide development of a 104 item questionnaire. This questionnaire was administered to a sample of college students at a midwest university.

Results

Based on item analyses and theoretical considerations, nine scales were identified and offered as reasonable constructs for the prediction of vanity-motivated overspending. These nine scales are:

- Vanity of friends: Vanity/status behaviors of the respondents' friends

- Vanity of parents: Vanity/status behaviors of the respondents' parents/guardians

- Vanity via fashion and appearance: Vanity-related behaviors concerning shopping, fashion, and physical appearance

- Vanity via social ascendancy: Vanity-related behaviors concerning meeting and socializing with important and prestigious people

- Money management: Savings habits and promptness of payments to creditors

- School performance: Performance in school; learning new things quickly

- Thrifty shopping: Extent to which the respondent seeks out good buys, shops in warehouses or outlets

- Compulsive and irresponsible spending: Buy goods that are not needed; Has urges to shop

- Locus of control: Measures the respondents position on the Rotter (1966) internal-external continuum. Locus of control refers to a generalized expectancy relating to whether or not one feels he/she has the power or control over what happens in his/her life. Respondents with an internal locus of control believe that they control their own destiny. Those with an external locus of control believe that much of what happens to them is determined by external forces such as fate or luck.

Some of these scales directly assess vanity, status seeking, or spending habits. These scales have strong content validity for the assessment of vanity-motivated overspending. Of the two remaining scales, locus of control has a strong theoretical link in the literature to both compulsive behavior and vanity-orientation. Educational attainment has empirical links to overspending. The nine scales were shown to have meaningful interrelations with each other and demographic variables.

Conclusion

The instrument development effort yielded a measure with excellent psychometric qualities, content validity, and evidence of construct validity. We propose that the primary goal of future research is to identify the magnitude of the instrument's validity for identifying vanity-motivated overspending. For this purpose, we recommend that DoD:

- Develop a methodology to score credit reports to differentiate vanity-motivated overspending from credit problems due to other reasons such as job loss or sudden illness.

- Conduct criterion-related validity studies

    - Identify a sample of persons with national security clearances to take the vanity instrument. Their credit reports would be scored with respect to vanity-related credit problems.

    - Expand the above study into a study of extreme groups by identifying a sample of persons who are in counseling for overspending. Analyses could be conducted to examine the extent to which the instrument's scales

could predict who the clearance holders are from those having credit problems.

By conducting either of the above criterion validity studies, an empirical key can be developed that could be used to detect people prone to vanity-driven overspending who have little or no credit history. This would be particularly useful for screening young applicants who have yet to obtain credit cards, loans, or other forms of credit.

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Introduction

Background

Booz•Allen & Hamilton Inc. was funded by the Office of Naval Research (ONR) to develop an instrument to detect people prone to vanity-motivated overspending. This research, awarded by the Defense Personnel Security Research and Education Center (PERSEREC) through the Financial and Credit Security Research Institutional Award Program, has been conducted in support of an effort to develop methods of reducing the proportion of people granted security clearances or sensitive assignments who are prone to engage in financially irresponsible acts.

It is necessary to enhance and improve the current process for prescreening and evaluating applicants in order to establish more effective management of the issuance of security clearances and sensitive assignments. An applicant's financial vulnerability is one aspect subject to a security investigation. Personnel who exhibit extravagant spending patterns may be more vulnerable to monetary enticements to breach security than people who manage their finances responsibly. Extravagant spenders may acquire a debt load that cannot be serviced by their legally acquired income, making them more susceptible to engaging in illegal, and profitable, offenses that might pose a risk to national security.

Report Structure

The report is organized into the following sections:

- Introduction - presents the project background and describes the organization of this report. Also presented is a review of past research relevant to the measurement and prediction of vanity-motivated overspending. The implications of the research for the development of a measure are described.

- Method - describes the approach used for this study, how the instrument was designed, and the subject sample.

- Results - describes the results of our analyses of the instrument results.

- Discussion - presents our interpretation of the results, outlines the limitations of the research, and makes suggestions for future research.

References and appendices are also presented. Appendix A contains the instrument and scoring key and is bound separately for test security reasons.

Literature Review

Research into credit worthiness has a relatively long history spanning five decades. (Buel & Lewis, 1969; Coakley, 1971; Dunham, 1938; Durand, 1941; Greenberg, 1940; Hassler, Myers, & Seldin, 1963; Morris, 1966). Throughout this history, the three C's of credit: character, capacity, and capital, have been stressed repeatedly. This study examines an aspect of character and its impact on personal financial management. Specifically, we seek to develop a measure that will predict vanity-motivated overspending.

Conducting a literature search for this topic is challenging as we located no studies that specifically address vanity-motivated overspending. Instead, our literature review considers three areas of potentially-relevant literature:

- Narcissism

- Compulsive over spending

- Correlates of saving behavior.

Excluded from our literature review are studies of credit worthiness because they are amply covered in the existing reviews (Grablowsky, 1973; Muchinsky, 1975a, 1975b). These studies typically seek methods of optimally scoring information on credit application forms.

The literature cited in each area is central to the research area, and provides the reader, who has additional interest, a good starting point for further exploration. At the conclusion of each literature section, we offer suggestions concerning how this literature might assist in the measurement and prediction of vanity-motivated behavior. Given that there is no directly relevant literature on vanity-motivated overspending, our suggestions concerning item topics are offered as informed speculation that appears reasonable based on the literature.

Narcissism

The concept of narcissism was introduced into the psychological literature in the late 1900's. Ellis (1888) introduced the term Narcissus-like and defined it as "a tendency for the sexual emotions to be lost and almost entirely absorbed in self admiration." However, the bulk of early theorizing on narcissism was developed by Sigmund Freud. Narcissism became a central construct in Freud's psychoanalytic theory. Freud used narcissism to describe a set of behaviors including:

- Attitudes towards self such as self-admiration, self-love, and effort to increase one's self-importance

- Fears related to one's self-esteem (e.g., fear of failure, fear of loss of love)

- A general defensive orientation

- Striving for self-sufficiency, perfection, and love (Raskin & Terry, 1988).

Narcissism is also reflected in a set of attitudes concerning the relations between oneself and others. These attitudes include:

- Expectations of special treatment and privileges

- Exhibitionism (i.e., drawing attention to yourself)

- Striving to control others

- Criticism of those different from oneself

- Intolerance of criticism.

The narcissistic individual perceives criticism to be a demand for self-change (Raskin & Terry, 1988).

Freud's writing stimulated additional psychological theorizing concerning narcissism in three major areas. First, there has been considerable discussion concerning the role of aggression in narcissistic behavior. Such aggression would be found as a defensive mechanism against the fear of loss (or actual loss) of love (Kernberg, 1975; Miller, 1981; Raskin & Terry, 1988). Second, it appears that narcissistic behavior is associated with a separation of positive images of self from negative images of self (Kernberg, 1975; Raskin & Terry, 1988). Third, narcissistic persons appear to lack internal regulation of self-esteem and depend on external sources of love and gratification (Kernberg, 1975; Kohut, 1971; Raskin & Terry, 1988).

Raskin and Terry (1988) reviewed a variety of measures of narcissism. Their in-depth analysis of the Narcissistic Personality Inventory suggests seven measurable components of narcissism:

- Authority. Contains items assessing leadership and assertiveness

- Self-sufficiency. Contains items concerning personal responsibility for decisions and belief in capabilities

- Superiority. Contains items concerning how the person is extraordinary and special

- Exhibitionism. Contains items concerning lack of modesty and desire for attention

- Exploitiveness. Contains items concerning manipulation and influence

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- Vanity. Contains items concerning physical appearance and displays of physical appearance

- Entitlement. Contains items concerning expectations of others and getting respect.

The researchers demonstrated that these components showed meaningful relations with several other measures thus supporting the construct validity of the instrument.

This literature suggests that the vain rely on external feedback to maintain their self-esteem. Thus, concepts such as locus of control may be relevant to the measurement and prediction of vanity-motivated behavior. The vain are also more concerned with physical appearance. In addition, the vain try to draw attention to themselves and seek confirmation of their self-worth through such attention. In addition to physical appearance, the vain are concerned about social appearances and may seek status through the purchase of material goods. They also may seek to gain social status through associations with those perceived to be powerful or gifted.

Compulsive Overspending

We introduce this section with the caveat that the literature related to compulsive overspending is primarily a literature of psychopathology. We draw from this technical literature the concepts judged relevant to overspending.

Overspending, whether vanity-motivated or not, may be viewed as a form of compulsive behavior. King (1981) summarizes the literature on compulsive consumption in the context of other pathological consumption disorders such as alcoholism and bulimia. Consistent with other compulsive behaviors, compulsive spending is characterized by:

- An obsessive desire to consume

- A loss of control and a psychological dependency on consumption

- Denial of possible negative consequences of the compulsive behavior

- Multiple failed attempts to stop the consumptive behavior

- Substantial negative emotions when the consumptive behavior is frustrated.

Valence, d'Astous, and Fortier (1988) suggested three factors associated with a compulsive buying act:

- Strong activation of emotions

- Level of cognitive control (level of awareness, focus, and enthusiasm for purchasing items)

- Level of reactivity (level of conflict and struggle between the id and the superego).

They postulate that these three factors are associated with four categories of compulsive spenders. An emotional motive for overspending is a characteristic of all four categories. The four categories are:

- Emotional reactive customer. In addition to having an emotional motive to spend, the consumer has weak cognitive control, and weak reactive behavior. This spender may consume in an attempt to compensate for some other frustrated need.

- Impulsive consumer. This consumer has strong reactive behavior and weak cognitive control. This consumer will have spontaneous desires to spend. The weak cognitive control is associated with little concern for the consequences of the spending behavior. This person may purchase goods that they recognize they do not need.

- Fanatical consumer. Coupled with strong emotional activation, this consumer has high cognitive control, but weak reactive behavior. This overspender is often only interested in one product (e.g., clothing, audio entertainment equipment), and will tend to buy for pleasure.

- Compulsive consumer. Complementing this consumer's strong emotional activation, is the consumer's high cognitive control and high reactive behavior. Of the four categories, this overspending is most similar to other forms of compulsive behavior. Spending is a method of reducing anxiety. The spender often does not spend to acquire goods, but is motivated primarily by the tension reduction act of spending.

Whether the consumption behavior meets a definition of pathological consumption, or is something less sinister, the end result of financial distress can be very serious regardless of the cause.

Valence, d'Astous, and Fortier (1988) also drew some hypotheses concerning compulsive buying from their review of psychosocial correlates of addictive behavior such as that presented by Boyks and Sytinsky (1980) for alcoholism. Valence et al. suggest that compulsive buying may serve as a method of social integration. They noted that parents and other close family members, as well as friends, have substantial influence on a person's compulsive purchasing behavior. Finally, they noted that a compulsive spender may try to hide their abnormal behavior.

Paulsen, Rimm, Woodburn, and Rimm (1977) conducted a study of methods for helping people who reported problems with impulsive overspending. The subjects were

college students and, while reporting problems concerning impulsive spending, were not drawn from any clinically compulsive sample. Half the subjects received training in self-control techniques. The techniques included self-reinforcement for responsible spending behavior, and modified habits such as keeping a budget, and the avoidance of carrying checks or credit cards. The remaining subjects were assigned to a placebo training course that discussed financial problems within the context of psychoanalytic theory. The placebo condition was not intended to offer real help in controlling impulsive spending. Results indicated that the impulsive spending of subjects assigned to the placebo condition did not improve. However, results showed that those subjects who received self-control training achieved a 55% reduction in spending that was maintained during a three month follow-up.

The King (1981), Valence et al. (1988) and Pauslen et al. (1977) articles suggested several characteristics that might be measured in the search for vanity-motivated overspenders. Similar to the conclusion from the narcissism literature that locus of control may be an important covariate of overspending, King (1981) has noted that compulsive behaviors are associated with a perception of loss of control. Likewise, Paulsen et al. (1977) has noted that overspenders perceive themselves as being less able to resist spending. Valence et al.'s (1988) analysis is informative because it suggest four types of people who will exhibit overspending:

- Impulsive spenders, described above, may report having sudden strong urges to spend. Such spending may occur with little foresight into the consequences of spending.

- Emotionally reactive spenders may spend to compensate for some other frustration such as real or perceived threats to self-esteem.

- Fanatical consumers may overspend for pleasure.

- Compulsive buyers may overspend to relieve anxiety.

The value of an instrument to predict and measure overspending may be enhanced to the extent that it assesses a variety of different characteristics associated with different categories of overspending.

Finally, the extrapolation of the psychosocial addiction literature suggests that family and friends can have a strong influence on consumption behavior. The literature on self-control of spending suggests additional topics that may be of value in an assessment of vanity-motivated spending behavior. Overspenders may view themselves as less able to avoid spending. They may also be less likely to maintain fiscal controls, such as maintaining a budget.

Correlates of Saving Behavior

Furnham (1985) has examined correlates of financial savings behavior. The dominant correlate is age. Older people find more value in saving money than do younger people. Pritchard, Myers, and Cassidy (1989) examined factors associated with saving in adolescents. Those youth who saved money were from families who tended to save and who planned money use. Youth who saved also achieved greater educational attainment and planned for education beyond high school. The association between educational achievement and credit was also found by Grablowsky (1973). Consistent with results cited earlier, savers tended to have an internal locus of control and believed that they had control over their life outcomes.

This research suggests that an instrument to measure and predict overspending may benefit from assessing parental financial behavior, educational attainment, and locus of control.

Method

The purpose of this study was to develop an instrument for detecting people prone to vanity-driven spending. After developing and administering the instrument, item and factor analyses were conducted for refining the instrument's scales and assisting in establishing its construct validity. The basic steps of the methodology were:

- Identify topic areas for item writing. Based primarily on our review of the relevant literature, we identified ten broad item topic areas.

- Write items for each topic area. Again, based on our review of the literature, we wrote multiple-choice items for each topic area. Items were reviewed for being relevant to both sexes (e.g., no items regarding cosmetics were included) and sensitivity to issues regarding sex and ethnicity. Most of the items used a four-level ordinal response scale such as:

  If you had the money, how likely would you be to have cosmetic surgery?

  a. Very likely
  b. Somewhat likely
  c. Not very likely
  d. Not at all likely

- Administer the instrument to subjects

- Conduct item and factor analyses to refine the hypothetically-derived scales into content homogeneous scales.

Below is a description of the ten topic areas. The development of these topic areas and the items within each area was reviewed and approved by the PERSEREC project manager before the instrument was administered to subjects.

Instrument Topic Areas

Consumer Attitudes

This section focused on attitudes toward the purchasing of goods and services. The intent was to measure how important social status is in the purchases people make. This includes shopping frequency, spending habits, spending motivation, and tendency towards extravagance. This section has 22 items, the most of any item topic area. Sample items in this section are:

- How important to you is buying designer or name-brand goods?

  a. Very important
  b. Somewhat important
  c. Not very important
  d. Not at all important

- How often do you go to a warehouse or outlet store to purchase products?

  a. Very often
  b. Somewhat often
  c. Not very often
  d. Never

Self-Report of Vanity

The items in this category measure peoples' vanity as expressed through their social behavior and interactions with others. This section has nine items. Sample questions for this section are:

- How important is it for you to be seen with important people?

  a. Very important
  b. Somewhat important
  c. Not very important
  d. Not at all important

- How often do you mention the names of important or influential people in conversation to impress others?

  a. Much more than others
  b. Somewhat more than others
  c. About the same amount as others
  d. Less than others
  e. Much less than others

Personal Appearance

These items form another measure of vanity through the evaluation of effort expended in maintaining personal appearance. The literature review suggests that vain individuals tend to spend more time and money on their personal appearance to impress others than more modest individuals. There are five items in this section. Sample questions for this section are:

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- Compared to other people your age and sex, how much do you spend on hair care services and products (e.g., haircuts, perms, shampoos, etc.)?

  a. Much more than others
  b. More than others
  c. About the same amount as others
  d. Less than others
  e. Much less than others

- If you had the money, how likely would you be to have cosmetic surgery?

  a. Very likely
  b. Somewhat likely
  c. Not very likely
  d. Not at all likely

Parents' Attitudes

The literature indicates that people often, consciously and unconsciously, assimilate social and behavioral patterns from their parents regarding money management and spending. Building on this theme, we asked questions regarding parental attitudes towards the purchasing of goods and services. We hypothesized that if a subject's parents were vanity-motivated extravagant spenders, the subject also will probably be an extravagant spender. There are eight items in this section. Sample questions for this section are:

- When you were growing up, how frequently did your parents/guardians dress you in designer clothes?

  a. Very often
  b. Somewhat often
  c. Not very often
  d. Never

- When you were growing up, how important was it for your parents/guardians to drive new or nearly new cars?

  a. Very important
  b. Somewhat important
  c. Not very important
  d. Not at all important

Friends' Attitudes

The purpose of this section was to evaluate if the people a person lives and/or socializes with are vanity-motivated extravagant spenders. The hypothesis here is that "birds of a feather, flock together." Items for this section are similar to the items above except they are directed towards people with whom the subject socializes and/or lives. There are eight items in this section. Sample items are:

- How important is it to your friends to wear the latest designer styles and fashions?

  a. Very important
  b. Somewhat important
  c. Not very important
  d. Not at all important

- How important is it to your friends to drive new foreign made cars such as BMW, Mercedes, Infinity, etc.?

  a. Very important
  b. Somewhat important
  c. Not very important
  d. Not important at all

Work Attitudes

The hypothesis for this section is that people prone to vanity-motivated extravagant spending will desire to work in high prestige occupations and organizations. For example, although a person may be a secretary, the person may only want to work in an organization with high name recognition such as the Ford Motor Company. There are two items in this section. The items for this section are:

- How important is it for you to be working in a prestigious organization with high name recognition?

  a. Very important
  b. Somewhat important
  c. Not very important
  d. Not at all important

- To what extent is a person's occupation important in determining whether or not you would be their friend?

  a. To a great extent
  b. To a moderate extent
  c. To a small extent
  d. Not at all

Education

The literature indicated that people who did well in school were less prone to spending beyond their means. Hence, we included this section on school performance. These items tend to be related to cognitive ability. There are five items in this section. Sample questions are:

- I learned subjects more rapidly than most students.

  a. Strongly agree
  b. Agree
  c. Undecided
  d. Disagree
  e. Strongly disagree

- I did very well in mathematics (arithmetic).

  a. Strongly agree
  b. Agree
  c. Undecided
  d. Disagree
  e. Strongly disagree

Money and Credit Management

This item topic area is based on the belief that people who responsibly manage their money will be less likely to overspend than people who do not responsibly manage their money. There are 10 items in this section. Sample items for this section are:

- I obtain credit cards to pay off the debts on other credit cards.

  a. Very often
  b. Somewhat often
  c. Not very often
  d. Never

- I manage my spending according to a general plan.

    a. Strongly agree
    b. Agree
    c. Undecided
    d. Disagree
    e. Strongly disagree

Locus of Control

For this section, we administered Rotter's locus of control questionnaire (Rotter, 1966) which contains 29 items (only 23 items are scored) and is in the public domain. Our hypothesis here is that people prone to extravagant spending are more apt to have an external locus of control. For these people, their personal identity and feelings of self worth are more attached to how they are perceived by others than how they feel about themselves.

Each item of the Rotter presents subjects with two statements and asks them to pick only one. Below is a sample item from the Rotter:

A. Many of the unhappy things in people's lives are partly due to bad luck.

B. People's misfortunes result from the mistakes they made.

Personal Characteristics

We believe that some personal characteristics items such as age will be of use in detecting extravagant spenders. There are six items in this section. Sample questions in this section are:

- What is your sex?

- What is your age?

Final Instrument and Sample

The instrument has a total of 104 items and takes approximately 40 minutes to administer. Instructions were developed for people administering the instrument and for subjects taking the instrument. Subjects were given a response sheet that could be optically scanned and verified. The instrument was administered to 193 undergraduates at a midwestern university who were enrolled in criminal justice courses.

Data Quality Control

The answer sheets were electronically scanned. A quality check was conducted on the complete set of data to identify "bad" cases that should be deleted from the sample prior to data analysis. Bad data includes observations where:

- A large amount of data was missing

- Response patterns indicated that the respondent was randomly or inattentively responding.

In an effort to maintain the largest data set possible, efforts were made to retrieve missing data. There are three possible reasons for why data is missing:

- The item was not answered

- The scanner recorded two responses (often due to the scanner reading an intended response and an ineffectively erased response)

- The response was not read by the scanner (typically due to a response that was too light to read, or a response that was recorded in ink).

It is often possible to retrieve missing responses that correspond to the last two categories.

A manual review of the coding sheets retrieved some missing data resulting from the scanner reading two responses. In these cases the second response was not completely erased by the respondent and it was possible to identify the intended response. It was also possible to retrieve data not read by the scanner due to the respondent recording answers in ink.

Likely random and inattentive respondents were identified through checks for:

- Outlying responses (i.e., responses that were not one of the options presented)

- Response patterns (i.e., AAAA, BBBB, ABCD, ABAB, etc.)

All outlying responses were converted to missing data following the data cleaning process. Six observations were dropped from the sample as a result of containing too much bad data. The final analysis sample consisted of 186 observations.

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Data Analyses

Item Analyses

Item analyses were conducted on all of the items in the instrument. Except for personal characteristics, scales were developed for each of the topic areas. These scales consisted of summing the item responses in each respective topic area. Items were transformed as necessary to generate scales scores. For the topic areas: consumer attitudes, self-report of vanity, personal appearance, parent's attitudes, friends' attitudes, and work attitudes, the lower the score the more vain the respondent. Low scores on education indicated low levels of educational performance. Low scores on money and credit management indicated poor money management. Low scores on locus of control indicated an external locus of control.

Factor Analyses

Of the 104 items in the instrument, six were demographic variables and 29 were locus of control items. The demographic variables were not subject to factor analysis. Since the scoring and factor structure of the locus of control items is well-established (Rotter, 1966), the locus of control items were excluded from the factor analysis also. The remaining 69 items were subject to factor analyses. This resulted in a total of 69 variables and 186 observations for a ratio of 2.7 observations to each variable. This is a satisfactory ratio to support analyses of the proposed nature. Exploratory factor analyses were conducted to determine if there was a preferable approach to grouping the items. Demographic correlates of the resulting scales were also examined.

Results

Topic Area Analyses

We first examined scales corresponding to our topic areas. These scales were formed by adding the item responses. Some item scales were reversed for consistency purposes. Based on item statistics, one item was dropped from the consumer attitudes topic area and one item was dropped from the self-report of vanity topic area. Table 1 reports the topic areas, the number of items in each scale, and the internal consistency (alpha) reliability. The topic area scales have acceptable reliabilities for their length.

Exploratory Factor Analysis

An exploratory factor analysis of the instrument's items (not including the demographic and locus of control items) suggested eight meaningful factors:

- Thrifty shopping

- Compulsive and irresponsible spending

- Vanity via fashion and appearance

- Vanity via social ascendancy

- Money management

- Vanity of parents

- Vanity of friends

- School performance.

Of the 69 variables under analysis, 11 had no compelling loadings on any of the eight factors. Although the locus of control items were not factorially-verified in the present study, we will treat the locus of control scale as a factor-derived scale based on its past research. Table 2 presents a mapping of the topic areas to the factor-derived scales. Table 3 presents the number of items in each factor-derived scale and its alpha reliability. Appendix A contains the items clustered within the vanity-motivated spending factors. Appendix A also identifies which 11 items from the original instrument were dropped when forming the factors.

We believe that the factor-derived scales, plus the locus of control scale, have greater psychological meaning than the topic area scales. Table 4 presents the intercorrelations of the factor-derived scales. Table 5 presents the demographic correlates of the scales.

TABLE 1

Scales Derived from Item Categories

Item Category	# of Items	Alpha Reliability
Consumer Attitudes	21	0.82
Self Report of Vanity	8	0.68
Personal Appearance	5	0.64
Parents' Attitudes	8	0.76
Friends' Attitudes	8	0.82
Work Attitudes	2	0.47
Education	5	0.64
Money & Credit Management	10	0.69
Locus of Control	23	0.73

TABLE 2

Mapping of Item Categories to Factor-Derived Scales

Item Categories	Proposed Scales
1. Consumer Attitudes	Thrifty Shopping
	Compulsive and Irresponsible Spending
2. Personal Appearance	Vanity Via Fashion and Appearance
3. Self Report of Vanity	
4. Work Attitudes	Vanity Via Social Ascendancy
5. Money and Credit Management	Money Management
6. Parents' Attitudes	Vanity of Parents
7. Friends' Attitudes	Vanity of Friends
8. Education	School Performance
9. Locus of Control	Locus of Control

TABLE 3

Factor-Derived Scales

Factor-Derived Scales	# of Items	Alpha Reliability
Thrifty Shopping	6	0.61
Compulsive and Irresponsible Spending	9	0.80
Vanity via Fashion and Appearance	10	0.80
Vanity via Social Ascendancy	8	0.74
Money Management	6	0.68
Vanity of Parents	7	0.78
Vanity of Friends	7	0.81
School Performance	5	0.64
Locus of Control	23	0.73

TABLE 4

Intercorrelation of Factor-Derived Scales

	1	2	3	4	5	6	7	8	9
1. Thrifty Shopping	-								
2. Compulsive and Irresponsible Spending	.36	-							
3. Vanity via Fashion and Appearance	.10	.40	-						
4. Vanity via Social Ascendancy	.12	.29	.49	-					
5. Money Management	.15	.39	.07	.03	-				
6. Vanity of Parents	.25	.28	.42	.41	.08	-			
7. Vanity of Friends	.08	.30	.48	.43	.03	.40	-		
8. School Performance	.19	.36	.10	.09	.25	-.06	-.04	-	
9. Locus of Control	.14	.27	.10	.12	.25	.06	.04	.21	-

$r > .14$ is significant at $p < .05$
$r > .19$ is significant at $p < .01$

TABLE 5

Correlations of Factor-Derived Scales with Demographics

	Sex	Salary	Age	Population	Student Status	Employment Status
Thrifty Shopping	.08	.16	.26	-.09	.07	-.14
Compulsive and Irresponsible Spending	-.12	.16	.18	-.19	.02	-.17
Vanity via Fashion and Appearance	-.26	.10	.25	-.20	.04	-.21
Vanity via Social Ascendancy	-.02	-.10	.14	-.04	-.02	-.10
Money Management	-.05	.21	.02	-.13	.03	-.01
Vanity of Parents	.04	.15	.16	-.13	-.01	-.13
Vanity of Friends	-.10	.06	.16	-.12	-.01	-.16
School Performance	.08	.05	.12	-.11	.12	-.13
Locus of Control	-.13	.11	.17	-.17	-.04	-.02

r > .14 is significant at p < .05
r > .19 is significant at p < .01

Discussion

Factor-Derived Scales

The topic areas mapped reasonably well into the factor-derived scales. Items in the last five topic areas - money and credit management, parents' attitudes, friends' attitudes, education, and locus of control -- translated almost directly into the last five factors -- money management, vanity of parents, vanity of friends, school performance, and locus of control -- respectively. Items within the consumer attitudes topic area segmented into the thrifty shopping, compulsive and irresponsible spending, and vanity via fashion and appearance factors. This is not surprising since the consumer attitudes topic area had by far the most items (22 items) and was most susceptible to heterogeneity. Items within the personal appearance topic area are also included in the vanity via fashion and appearance factor. The self-report of vanity and work attitudes topic areas were combined to create the vanity via social ascendancy factor. The locus of control scale is based on the 23 scored items in the Rotter locus of control questionnaire. When computing scores for all of the factor-derived scales, a high score is good (i.e., not likely to be vanity-driven extravagant spender) and a low score is bad (likely to be a vanity-driven extravagant spender).

The thrifty shopping scale is primarily an indicator of how often people shop at outlet stores, prepare budgets, or conduct research before making an expensive purchase. A high score means that a person usually tries to find the best deal possible when purchasing items.

The compulsive and irresponsible spending scale measures how often people have and give in to urges to spend money and how responsibly they manage their money. A low score means that people often buy things they don't need, spend money when they know they don't have any money, and buy more on impulse rather than need.

The vanity via fashion and appearance scale measures peoples' need to appear and look fashionable. A low score means that people are very concerned about their personal appearance and need to be dressed in the latest fashions. They also spend considerable time and money on personal care products and services such as perms and haircuts.

The vanity via social ascendancy scale measures people's need to be around and associate with important people. A low score means people will select friends based on their occupational status, purposefully try to become friends with powerful people, and intentionally "name drop."

The money management scale measures how well people are able to meet their expenses and save money. A high score means people tend to pay their bills on time and have money in savings.

The vanity of parents scale measures parental vanity in terms of how purchases were made regarding clothes, cars, schools, etc. A low score means that people's parents placed great emphasis on driving a new car or wearing fashionable clothes.

The vanity of friends scale measures the vanity of subjects' friends in terms of cars, clothes, social status, etc. A high score means that a subjects' friends do not place great emphasis on being fashionably dressed, wearing expensive jewelry, or shopping.

The school performance scale measures how well subjects self-rated their performance in school. A high score means people rated their school performance and ability to learn as being very good.

Scale Reliabilities and Intercorrelations

The nine factor-derived scales show adequate alpha reliabilities (Table 3) ranging from .61 for thrifty shopping to .81 for vanity of friends. The locus of control reliability is interesting (.73) because this is scale is over twice as long as any of the other factor-derived scales yet the reliability is well below the highest scale reliability of .81. We posit that this may be due to the greater heterogeneity of items in the locus of control scale.

Some of the scale intercorrelations (Table 4) are quite informative. Intercorrelations were substantial among the vanity via fashion and appearance, vanity via social ascendancy, vanity of parents, and vanity of friends scales. These intercorrelations ranged from .40 to .49. This indicates that a person's attitudes toward social ascendancy, fashion, and appearance are similar to those of one's parents and friends. It appears that individuals assimilate the values of their parents and select social circles with values similar to their own.

The correlation of .39 between the money management scale and the compulsive and irresponsible spending scale supports the hypothesis that people prone to compulsive or irresponsible spending are less likely to support strong savings habits. These individuals are also less likely to exhibit thrifty purchasing habits such as buying sale items or shopping at outlet stores.

Correlations are generally weak between the school performance scale and the vanity scales. School performance has higher correlations with financial management scales such as thrifty shopping and money management.

Demographic Correlates of Instrument Scales

Demographic data were collected on the respondents. The demographic variables were:

- Sex

- Salary

- Age

- Population (size) of home town

- Student status (full or part time)

- Employment status (full or part time, no employment).

Correlations between the instrument's scales and demographic variables were examined (Table 5).

Sex, age, population, and employment status were significantly correlated with vanity via fashion and appearance. In particular, women seemed to be more vain than men regarding fashion and appearance (-.26). Although age and employment status were significantly correlated, we are less confident about these results due to the sample being composed of university undergraduates.

Salary, age, population, and employment status were significantly correlated with compulsive and irresponsible spending. People with lower salaries, from bigger population areas, and the unemployed seemed to be more compulsive spenders. Older subjects were less likely to be compulsive and irresponsible spenders. We interpret these results with some caution due to the relatively low correlation coefficients (-.19 was the best) and our population sample. There was significant range restriction in the salary and age distributions.

Salary and age were significantly correlated with being a thrifty shopper. The correlation coefficients were .15 and .25 respectively, but again, there was great range restriction in these two demographic variables due to the undergraduate university population.

Limitations of the Current Study

Due to the fairly homogeneous nature of the sample, there was limited variance for some of the demographic variables. This limited variance minimized the correlations of these variables with the factor-derived scales. Good examples are the salary and age demographic variables. Age correlated significantly with six of the scales (.16 - .26) although 152 of 186 subjects were in the "under 25" age category. Salary

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correlated significantly with four of the scales (.15 - .21) although 174 of 186 subjects selected the lowest salary range. This suggests that larger correlation coefficients would be obtained if the instrument was administered to a population with greater variance in age and salary.

Another limitation is the small sample size. Although this sample size has yielded results that support the construct validity of the measure, the instrument should be tested with a larger sample size to confirm the factor-defined scales.

The primary limitation of this study is the absence of any external criterion for validating the instrument's ability to predict vanity-driven extravagant spending. A study using criterion data such as credit report information needs to be conducted for evaluating the instrument's ability to detect vanity-driven extravagant spenders.

Suggestions for Future Research

Although this study was designed to develop an instrument and offer construct validation evidence, work still needs to be done for conducting a criterion validation of the instrument. Since the instrument may be used for screening applicants for sensitive positions, we recommend that a criterion validation study be conducted with current government employees holding security clearances. The study would use employees' credit history as the criterion. The data would be examined to determine if relationships could be found between the instrument scales and data in the subjects' credit reports. Analyses could also be conducted to determine relationships between the instrument's scales and vanity-related credit problems as determined by credit reports.

The above study could be expanded into a study of extreme groups. Two samples of people would be obtained, one of people who are seeking counseling for spending problems and another of current government employees who hold security clearances. Analyses could be conducted to examine the extent to which the instrument's scales could differentiate between the two samples.

Analyses could also be conducted to determine the credit report characteristics of vanity-driven extravagant spenders. This could be helpful when examining credit reports to differentiate those who are having credit problems due to extravagant spending from those who are having credit problems due to a sickness or recently being laid-off from work.

Further attention is needed concerning future uses of the instrument. We believe the instrument's greatest value is for detecting vanity-driven overspending among those with little or no credit history. Such persons would include young adults who have yet to obtain credit cards, loans, or other forms of credit.

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